## **ABSTRACT**

A method and system for recognizing and selecting a portion of an image. The method and system employs user-controlled region growing to select a region within an image. The user manipulates a user input device to interactively increase or decrease the number of iterations performed by a region growing routine. The progress of the growth of the region is displayed to the user on a display. In the case of a three dimensional image, the user may select sectional or volume views of the image within which to monitor the growth of the region. Once the user determines an appropriately sized region has been grown, the remainder of the image is scalpelled away and the selected region is displayed on the display. Alternatively, the region is scalpelled away and the remainder of the image is displayed on the display.